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CHILTON'S

DISTRIBUTION

THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE SEPTEMBER 1986

Special Section
WAREHOUSING REVIEW

OOPS!

TIME FOR ANOTHER INVENTORY PLAN

LTL SHIPPER OF THE YEAR
STATE-BY-STATE DISTRIBUTION GUIDE
AIR FREIGHT SUCCESS STORIES

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BETHESDA MD 20814

VOL. 85, NO. 9

CHILTON'S
DISTRIBUTION

SEPTEMBER 1986

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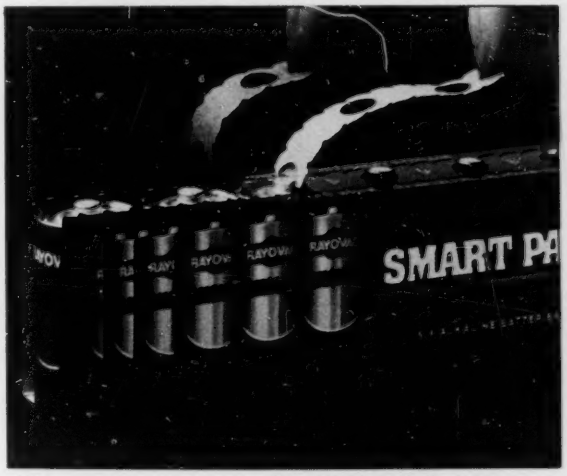
Business is booming for battery maker Rayovac, and the distribution department is leading the charge to better margins. That's why the Wisconsin company is the 1986 DISTRIBUTION/NASSTRAC LTL Shipper of the Year.



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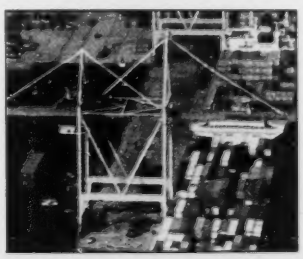
Lining up the load centers



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A QUICK INVENTORY

Seasonal demand surges, new product introductions, inaccurate forecasts, redirected marketing efforts. All of these translate into inventory fluctuations. Some are predictable, many aren't. How does your company prepare for its inventory swings? That's what our June Dialogue card asked. Here are some of the key steps our readers have taken to bring order to the process. Also, you can find out how others handle inventory problems in this month's cover story, "Oops—Time For Another Inventory Plan," (page 10).

"We utilize air freight to offset delays in JIT. JIT seems to be always 'just one day late.' "**—Paul Weber, nat'l physical dist. mgr., Agfa Gevaert, Inc., Teterboro, NJ**

"We require suppliers to maintain an average truckload of material in 'easy access.' On call, we can have merchandise in the warehouse, ready to deliver in 24 hours from 1,200 miles away. Quick reflexes is the answer."**—Joe Vann, dist. mgr., Kesha Distribution, Arlington, TX**

"To prepare for upswings, eight to 12 weeks advance notice is required to assure product completion on schedule."**—Jeff Jones, materials mgr., JTW Drills & End Mills, Pine Bluff, AZ**

"Inventory levels are adjusted weekly using sales projections, current trends and historical movement."**—William M. Hazen, director, distribution and traffic, Taylor Food Products, Compton, CA**

continued

The greatest inventory challenge for my operation is:	
new product introductions	33%
seasonality	30%
non-seasonal demand fluctuations	22%
new marketing strategies	15%
Inventory aberrations create the greatest challenge in:	
outbound freight management	39%
work-in-process	32%
inbound management	29%
JIT has made coping with demand swings harder	65%
JIT has made coping with demand swings easier	35%
Have had to put a recall or discontinuation contingency plan into action in the past two years	39%

QUESTION OF THE MONTH

BUDGET BATTLES

Whether your company's on a fiscal or calendar year accounting set-up, by now you've certainly gone through another budget war. How did the transportation/distribution department fare in 1987? Will your department have more money to spend and people to work with next year? Or will you have less? Maybe your company is holding the line—maintaining the status quo?

General economic signs remain fairly healthy, but does that mean that these are relatively relaxed times for departmental purse strings? Or does the pressure continue to mount to maximize your return—or minimize your drain? Are you being asked to do more with less?

If and when you are asked to cut your proposed budget, what are the lines you have the hardest time protecting? In your management's view, what are accepted as essential expenditures? What kinds of things are viewed as excessive or luxuries?

Give us your answers to these and other questions about your company's budget policies on the card below.

DIALOGUE September 1986

- My department's 1987 budget will be _____larger/_____smaller/_____the same as '86's, by _____percent (if larger or smaller).
- My department's 1987 head count will be _____larger/_____smaller/_____the same as '86's.
- The transportation/distribution budget line that was reduced most for '87 was (check ONE only): _____freight bill; _____equipment (leased or purchased); _____salaries; _____computer processing expenses; _____administrative; _____other: _____
- The transportation/distribution budget line that was increased most for '87 was (check ONE only): _____freight bill; _____equipment (leased or purchased); _____salaries; _____computer processing expenses; _____administrative; _____other: _____
- As now budgeted for '87, transportation/distribution expenses amount to _____ percent of corporate revenues.
- Where did you get your '87 budget figures from? _____A percentage over last year; _____industry averages; _____proportionate to sales forecasts; other: _____

Here's the response I got from top management after preparing and presenting the 1987 budget for my company's transportation and distribution operations:

_____

_____

_____

_____

_____

NAME (print) TITLE

COMPANY PHONE

ADDRESS

CITY STATE ZIP

FIGURES IN SPEECH

(Quotes from transportation and distribution notables that have caught the ears of *DISTRIBUTION* editors:)

"How can we call a market that generates only one percent of total intercity traffic saturated? Our future lies not in seizing a bigger share of a static or shrinking pie, but in finding new customers. Much of American and foreign industry is turning out goods that are right for traffic by air."—**George Ryan, president, Burlington Northern Air Freight.**

"Re-evaluate how you purchase air freight services. Price can't be the only criteria, because almost any carrier can meet or beat the price. Picking a vendor on the basis of price alone is like selecting a dinner entree by reading only the cost column. You don't know if your selection is frog's legs, calf's liver or filet mignon on a full course dinner or a la carte. Today, air services are packaged and repackaged in different ways. When you buy a car, you size up the standard equipment, price out the options that interest you and either mix and match or make trade-offs. The same kind of reasoning will serve you well in shopping for a freight company."—**Norman Freeman, president, Associated Air Freight.**

"Outbound orders are ready a minimum of seven days prior to due date, but we end up "storing" many over 30 days. H-O-T works better than J-I-T."—**James Souder, traffic mgr., Worthington Steel Co., Columbus, OH**

"Good communication with customer service, quick shipping performance from warehouses, refined sales plans and central warehouse facilities to absorb swings."—**Kevin Shannon, reg'l distribution mgr., Dow Consumer Products, City of Industry, CA**

"It is imperative that my department is totally involved in setting material schedules and aware of amended production schedules. To insure JIT works, suppliers are constantly communicated with regarding production schedules and sales forecasts. Key 'A' or 'B' long lead time materials are explicitly done on a consignment purchasing basis as to stock levels."—**Lester Sandler, purchasing mgr., Caradco Corp., Rantoul, IL**

"Our inventory turns make customer service the most important factor, as stock is not kept or stored for long periods of time. Our warehouse is not geared for large inventory amounts."—**Paul Kiefer, traffic mgr., Tube Steel Co. of America, New York, NY**

"Maintain outside storage alternatives. We have surplus space due to seasonal markets."—**H. Nicholls, distribution mgr., R.R. Donnelley, Warsaw, IN**

"Expediting and reordering. Develop three and nine months (minimum/maximum) stock levels."—**R. Cassidy, maintenance inventory system coordinator, Chicago Transit Authority, Chicago, IL**

"We use the ASI forecasting system and tie it into our master production schedule at three of our plants."—**Robert Dunn, distribution mgr., Dana Corp., Boston Division, Brentwood, TN**

"Marketing confirmation and planning, product priority adjustment and frequent product volume sampling."—**B. Cybularz, materials mgr., Dayco Corp., Ocala, FL**

"Revise forecasts for the next 60 production days, and then schedule production accordingly."—**Michael Whiteside, planning/distribution mgr., Burmah Castrol, Inc., Hackensack, NJ**

"Marketing communications, decrease or increase supplies of raw materials and adjust production. We have a manufacturing marketing plan as a base line tool."—**David J. York, materials & distribution, Steadley Co., Carthage, MO**

"We revised our short-term forecasting programs and project control reporting."—**W. Strache, plant mgr., Croue Hinds Lighting, Windsor, CT**

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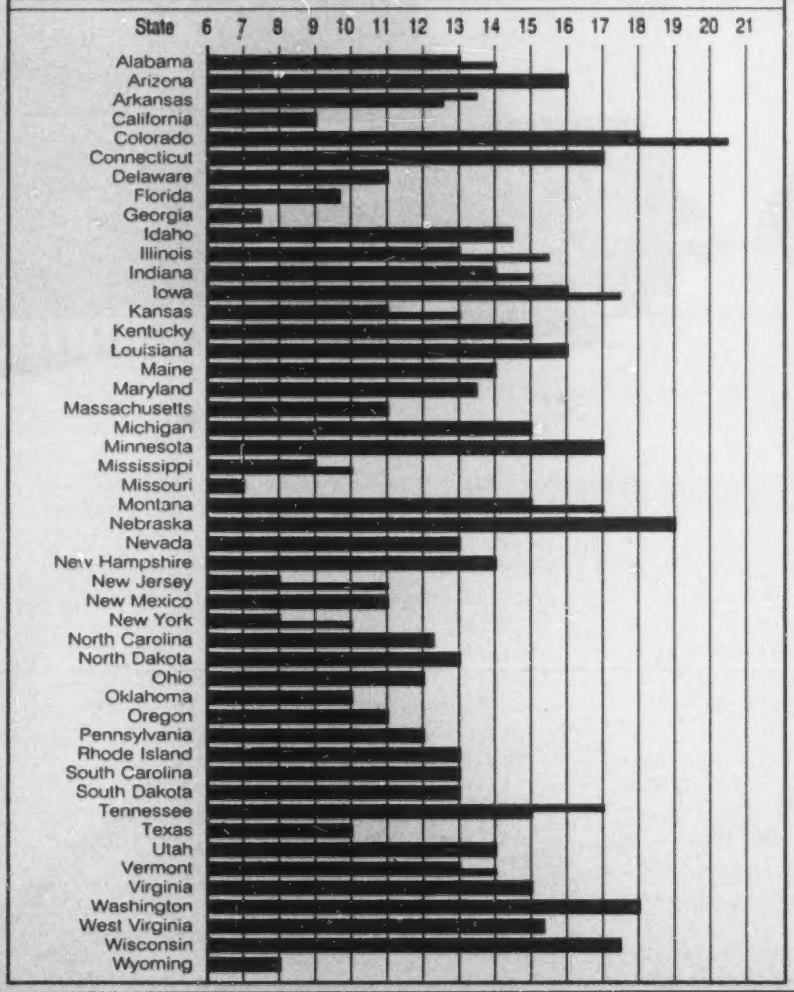
STATE STATISTICS

GUIDE TO DISTRIBUTION & SITE LOCATION DECISIONS

DISTRIBUTION's annual rundown of business environments in the 48 contiguous states

STATE MOTOR FUEL TAX RATES



The information presented in this feature was gleaned from a number of sources. Because it was impossible to convey, in these charts, the full extent of the details provided in these sources, it is recommended that the reader consult these primary sources where appropriate.

One of the most useful tools for evaluating the states is the "General Manufacturing Climates" study. Conducted annually by Grant Thornton accountants and management consultants, it rates the states according to 22 economic factors. Copies are available for $50. Contact Grant Thornton, 1700 Prudential Plaza, Chicago, Ill. 60601.

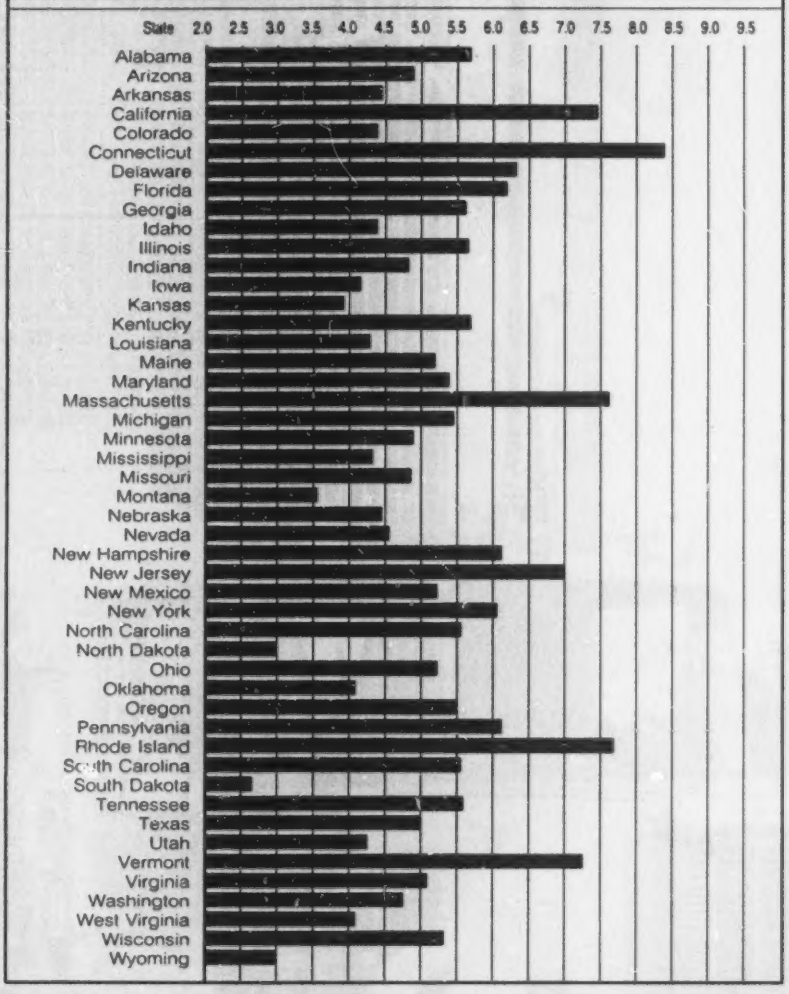
The data on motor fuel taxation was supplied by the Highway Users Federation, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036-1993.

Information on highway regulations, taxes, and reciprocity agreements is also available from the Private Carrier Conference of the American Trucking Associations. Contact the Private Carrier Conference, 2200 Mill Rd., Alexandria, Va. 22314.

FUEL TAX RATES represents the taxes imposed on motor fuels in cents per gallon. The bars are doubled, the upper segment indicating the tax on gasoline, the lower segment the tax on diesel fuel. In many cases the two fuels are taxed at the same rate. In addition to the basic rates, many states also impose additional mileage taxes, surcharges, etc. At the time this data was compiled, motor fuel tax increases were being considered in Illinois, Louisiana, New Jersey and South Carolina. Source: Highway Users Federation.

STATE STATISTICS

ENERGY COSTS PER MILLION BTUs



ENERGY COSTS indicates the cost, in dollars, of fuel and electric energy. Figures are not available for years after 1981. The figures thus represent approximations based on 1982 data. Businesses in the new England states have paid the most for energy. The region was the only one which paid more than the national average cost for fuel. (The average cost within New England was calculated at $7.10. The national average was $6.51.) Further, five of the six states in the New England area (Connecticut, Massachussets, New Hampshire, Rhode Island, and Vermont) ranked among the ten most fuel-expensive states. In contrast, the North Central area posted seven of the ten cheapest rates in the nation (Iowa, Kansas, Montana, Nebraska, N. Dakota, S. Dakota, Nebraska). Source: General Manufacturing Climates, Grant Thornton.

50 LEADING MANUFACTURING MARKETS

Metro area	1985 Shipments	% of US Total	Total Plants	Metro area	1985 Shipments	% of US Total	Total Plants
Los Angeles area	$74,924	3.66	4,566	Louisville	$14,092	0.69	520
Chicago	71,730	3.50	5,976	Kansas City	13,950	0.68	938
Detroit	60,304	2.94	3,637	Greensboro area	13,629	0.67	763
Philadelphia	53,255	2.60	3,212	Rochester, NY	12,617	0.62	503
New York	44,861	2.19	5,544	New Orleans	12,435	0.61	386
Boston area	38,998	1.90	2,939	Columbus	12,291	0.60	641
Houston	35,208	1.72	1,446	Bridgeport, CT area	12,184	0.59	948
San Jose	29,506	1.44	819	Richmond area	12,039	0.59	411
Newark	24,693	1.21	1,912	Providence, RI area	11,568	0.56	1,558
Minneapolis,St. Paul	24,388	1.19	1,598	Toledo	11,365	0.55	444
Cincinnati	21,067	1.03	972	Indianapolis	11,254	0.55	649
Cleveland	20,886	1.02	1,962	Hartford, CT area	11,168	0.55	1,080
St. Louis	20,843	1.02	1,499	Baton Rouge	11,004	0.54	171
Beaumont area	19,760	0.96	119	Flint, MI	10,932	0.53	124
Dallas	17,987	0.88	1,317	Allentown, PA area	10,813	0.53	581
Nassau-Suffolk	17,902	0.87	1,838	Phoenix	10,791	0.53	675
Milwaukee	17,805	0.87	1,243	Charlotte area	10,644	0.52	892
Oakland	17,277	0.84	749	Denver	10,293	0.50	771
Bergen, NJ area	16,944	0.83	1,767	Portland, OR	9,823	0.48	729
Middlesex, NJ area	16,032	0.78	809	Lake Charles, LA	9,653	0.47	50
Seattle	15,752	0.77	814	Ft. Worth area	9,327	0.46	652
Pittsburgh	15,662	0.76	1,004	Greenville area	8,733	0.43	572
Anaheim area	14,954	0.73	853	Salt Lake City area	8,646	0.42	494
Atlanta	14,509	0.71	1,054	Washington, DC	8,564	0.42	729
Baltimore	14,464	0.71	958	Lansing, MI area	8,471	0.41	166

WHERE TO DRAW THE LINE

Several charts in this feature summarize information gathered by Grant Thornton in its "General Manufacturing Climate" survey. For the purposes of the study, the 48 contiguous states were grouped into eight regions as follows:

Southwest – Arizona, Colorado, Nevada, New Mexico and Utah;
Southeast – Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Virginia;
North Central – Idaho, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota and Wyoming;
South Central – Arkansas, Louisiana, Oklahoma and Texas;
New England – Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont;
MidEast – Delaware, Maryland, New Jersey, New York, Pennsylvania, West Virginia;
West – California, Oregon and Washington, and;
Great Lakes Region – Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin.

LEADING MARKETS – "Shipments" indicates the production of manufacturers employing 20 or more workers. "% of U.S. Total" indicates the metro area's share of the total U.S. manufacturing production, by number of shipments. "Total Plants" is the number of manufacturing facilities in the area which employ 20 or more workers. Source: 1986 Survey of Industrial & Commercial Buying Power, and Sales & Marketing Management.

STATE STATISTICS

MOTOR VEHICLE SIZE, WEIGHT AND ACCESS RESTRICTIONS

	height			width		length											weight			access						
						straight truck					tractor/ trailer															
	13'6"	14'	14'6"	96"	102"	35'	40'	45'	60'	see notes	60'	65'	70'	see notes	not specified	73,000 – 79,999 lbs	80,000 lbs	over 80,000	see notes	5 miles	1 mile	3 miles	5 miles	10 miles	unlimited	see notes
Alabama	•			•			•				•						•				•					
Arizona	•			•			•								•		•								•	
Arkansas	•				•		•				•						•								•	
California					•		•					•					•			•						
Colorado	•				•		•						•				•									
Connecticut	•				•				•						•		•				•				•	
Delaware	•			•			•				•						•									a
Florida	•				•	•									•		•									b
Georgia	•				•				•		•						•				•					
Idaho		•			•		•								•		•								•	
Illinois	•				•					a				e		•							•			
Indiana	•				•					b					•		•								•	
Iowa	•			•			•				•						•									
Kansas	•				•					c					•			•							•	
Kentucky	•				•										•		•						•			
Louisiana	•			•			•								•			•				•				
Maine	•				•			•			•						•									c
Maryland	•			•			•								•	•										d
Massachusetts	•				•	•					•						•									e
Michigan	•			•			•							f		•							•			
Minnesota	•				•		•					•				•										f
Mississippi	•				•		•								•		•								•	
Missouri				•			•				•						•							•		
Montana	•				•		•								•		•									g
Nebraska			▪		•		•					•													•	
Nevada		•			•		•						•						i						•	
New Hampshire	•				•	•									•		•									h
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New Mexico	•				•		•					•					•	•								j
New York	•			•		•					•						•									k
North Carolina	•			•		•					•					•						•				
North Dakota	•				•		•		d					g			•							•		
Ohio	•				•		•							h			•								•	
Oklahoma	•				•												•									l
Oregon		•			•		•				•						•									m
Pennsylvania	•			•			•				•						•									n
Rhode Island	•				•		•				•						•									o
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Texas	•				•			•							•		•								•	
Utah		•			•			•							•		•								•	
Vermont	•				•				•		•						•									q
Virginia	•			•			•				•									•						
Washington		•			•		•										•								•	
West Virginia	•			•			•				•						•									r
Wisconsin	•				•		•				•						•					•				
Wyoming		•			•									i				•						•		

MOTOR VEHICLE RESTRICTIONS outlines the size and width limitations observed by the various states. The limits described are those imposed on vehicles travelling on state and non-designated highways. Limits governing vehicles travelling on the insterstate system are governed by the provisions of the Surface Transportation Assistance Act. Also included in the chart are the restrictions limiting access to the designated interstate highway system. The limitations listed under the "length" heading are those for a two-axle straight truck, and for 3-axle tractor, 2-axle trailer combinations. The limits listed are those in general application. Several exceptions or additional restrictions may be applied in some cases.

Notes, vehicle sizes and weights:

a – maximum length = 42 ft.
b – maximum lentgh = 36 ft.
c – maximum length = 42 ft., 6 in.
d – maximum length = 50 ft.
e – maxirnum 55 ft. wheelbase
f – maximum length = 60 ft., with maximum semi-trailer length of 48 ft.
g – maximum length = 75 ft.
h – maximum length = 53 ft.
i – maximum length = 85 ft.
j – maximum weight = 72,500 lbs.

Notes, interstate system access provisions:

a – By permit only
b – Rural interchanges 1 mi. (2 lane) and 3 mi. (4 lane); urban interchanges 1 mi on crossroads with 12-ft. lanes. Other access by petition
c – Rural interchanges 2 mi., urban interchanges .5 mi.
d – Shortest practical route
e – By permit only
f – Determine on case-by-case basis
g – No policy
h – By permit only for twins
i – By permit only for twins
j – 20 mi.
k – Permit required beyond 1,500 ft.
l – "very reasonable" access
m – All but local roads, twins not restricted
n – .2 mi.
o – Doubles restricted to 1 urban mi.,1 mi. on 2-lane roads, 3 mi. on 4-lane roads in rural areas
p – By permit only
q – Unpermitted twins: .5 mi for access to food, fuel, lodging, terminals
r – 2 mi.

STATE STATISTICS

STATE LABOR ENVIRONMENTS

AVERAGE WAGES

State	Avg. Wage/hr.	% Change	State	Avg. Wage/hr.	% Change
Alabama	$ 7.97	13.69	Nebraska	$ 8.93	11.49
Arizona	9.09	13.34	Nevada	9.12	8.31
Arkansas	7.31	16.77	New Hampshire	7.85	22.46
California	9.77	14.14	New Jersey	9.50	18.45
Colorado	9.24	11.59	New Mexico	7.97	21.87
Connecticut	9.22	20.21	New York	9.22	17.60
Delaware	9.30	12.32	North Carolina	7.01	18.01
Florida	7.62	16.69	North Dakota	7.86	10.39
Georgia	7.58	19.00	Ohio	10.96	15.01
Idaho	9.34	13.49	Oklahoma	9.64	17.56
Illinois	10.08	13.13	Oregon	10.44	10.24
Indiana	10.45	11.53	Pennsylvania	9.28	11.81
Iowa	10.25	6.77	Rhode Island	7.23	18.52
Kansas	9.40	16.77	South Carolina	7.28	17.80
Kentucky	9.28	18.07	South Dakota	7.15	0.42
Louisiana	10.06	17.25	Tennessee	7.93	18.01
Maine	8.05	20.87	Texas	9.04	13.71
Maryland	9.45	12.63	Utah	8.95	15.63
Massachusetts	8.50	21.26	Vermont	8.03	18.26
Michigan	12.18	15.67	Virginia	8.12	18.71
Minnesota	9.75	16.07	Washington	11.61	11.21
Mississippi	6.95	15.64	West Virginia	9.93	12.84
Missouri	9.32	17.97	Wisconsin	10.03	13.98
Montana	10.74	18.15	Wyoming	8.86	12.29

AVERAGE WAGES represents the average hourly wage paid to manufacturing workers within each state. These amounts indicate the general cost of human resources. The column labelled "% change" indicates the trend in the average manufacturing wage over the last three years. The lowest average wage is paid in the state of Mississippi, the highest in the state of Michigan. Both states' average wages have grown at moderate rates, indicating little likely change in rank in the near future. Regionally, the southeast presents the most favorable wage climate, with an overall average of $7.75/hr. per worker. At the same time, however, wages in the southeast are rising faster than most areas of the country. Source: General Manufacturing Climates, Grant Thornton.

UNIONIZATION

State	Union Workforce	% Change	State	Union Workforce	% Change
Alabama*	18.98%	-5.75	Nebraska*	10.82%	-13.24
Arizona*	4.24	-2.05	Nevada*	7.48	-1.87
Arkansas*	13.60	1.52	New Hampshire	7.53	-6.16
California	24.21	-2.93	New Jersey	20.95	-5.87
Colorado	10.80	-2.05	New Mexico	12.40	-18.96
Connecticut	15.67	-6.54	New York	51.82	3.16
Delaware	22.16	13.20	North Carolina*	5.24	5.05
Florida*	8.63	0.07	North Dakota*	10.97	-19.05
Georgia*	13.41	-5.41	Ohio	43.98	5.52
Idaho*	12.01	-10.79	Oklahoma	17.03	-3.11
Illinois	35.98	-13.02	Oregon	24.29	-3.26
Indiana	42.60	6.40	Pennsylvania	41.11	0.71
Iowa*	28.23	-8.84	Rhode Island	7.65	-29.00
Kansas*	13.14	2.60	South Carolina*	3.80	-1.66
Kentucky	26.52	-1.78	South Dakota*	3.52	-8.59
Louisiana*	23.17	14.52	Tennessee*	15.52	-1.47
Maine	21.54	-0.06	Texas*	16.69	4.06
Maryland	31.64	-3.08	Utah*	5.63	-22.00
Massachusetts	17.74	-6.89	Vermont	8.18	27.57
Michigan	54.93	8.51	Virginia*	12.17	5.38
Minnesota	20.44	-20.55	Washington	32.39	-7.47
Mississippi*	9.18	5.64	West Virginia	37.10	-3.15
Missouri	35.05	-15.71	Wisconsin	29.31	-5.98
Montana	25.35	0.93	Wyoming*	17.86	-7.37

UNIONIZATION indicates the degree to which the available local workforce is unionized. This factor has a potential affect on the future cost of labor and on labor relations. The second column indicates the change in unionization over two years, as a percentage of the total union workforce. Those states marked with an asterisk are those which have enacted right-to-work laws. In most states, union membership has suffered recently. In some cases, the decline has been drastic. In Arizona, for example, unions have lost more than one-fifth of their membership. Nationwide, membership was down 4.89 percent. The only region which showed a substantial gain in unionization is the South Central states, which showed a 4.25 percent increase overall. Source: General Manufacturing Climates, Grant Thornton.

LABOR PRODUCTIVITY

State	Work Stoppages	Value Added/$	State	Work Stoppages	Value Added/$
Alabama	0.015%	$3.60	Nebraska	0.000%	4.46
Arizona	0.049	5.04	Nevada	0.000	4.24
Arkansas	0.141	3.87	New Hampshire	0.000	3.52
California	0.054	4.59	New Jersey	0.036	4.50
Colorado	0.017	4.25	New Mexico	0.000	4.45
Connecticut	0.185	4.22	New York	0.044	4.98
Delaware	0.151	4.61	North Carolina	0.000	4.01
Florida	0.001	4.67	North Dakota	0.000	4.76
Georgia	0.015	4.15	Ohio	0.090	3.73
Idaho	0.054	4.15	Oklahoma	0.028	3.43
Illinois	0.032	4.19	Oregon	0.079	3.31
Indiana	0.045	3.60	Pennsylvania	0.097	3.80
Iowa	0.003	4.65	Rhode Island	1.052	3.58
Kansas	0.044	4.69	South Carolina	0.000	3.42
Kentucky	0.025	4.30	South Dakota	1.070	4.75
Louisiana	0.013	4.66	Tennessee	0.000	4.06
Maine	0.601	3.20	Texas	0.047	4.79
Maryland	0.025	4.07	Utah	0.000	4.51
Massachusetts	0.006	4.47	Vermont	0.000	4.80
Michigan	0.145	3.46	Virginia	0.028	4.07
Minnesota	0.087	4.58	Washington	0.015	3.53
Mississippi	0.000	3.87	West Virginia	0.098	3.45
Missouri	0.070	4.40	Wisconsin	0.014	3.80
Montana	0.210	2.53	Wyoming	0.000	3.01

LABOR PRODUCTIVITY represents, in the first column of data, the percentage of working hours lost due to work stoppages. The second set of figures shows the average value added to manufacturing production for each dollar invested in the payroll. These figures indicate the productivity of the workforce in each state. The range in both sets of figures is wide. Several states recorded no work stoppages within the scope of the survey (data was not collected for stoppages involving fewer than 1,000 workers). On the other hand, two states reported over 1 percent of time lost. The value of each added dollar of payroll ranged from over $5 to $2.53, a difference of nearly 100 percent. The higher figure is closer to the national average of $4.11. Source: General Manufacturing Climates, Grant Thornton.

STATE STATISTICS

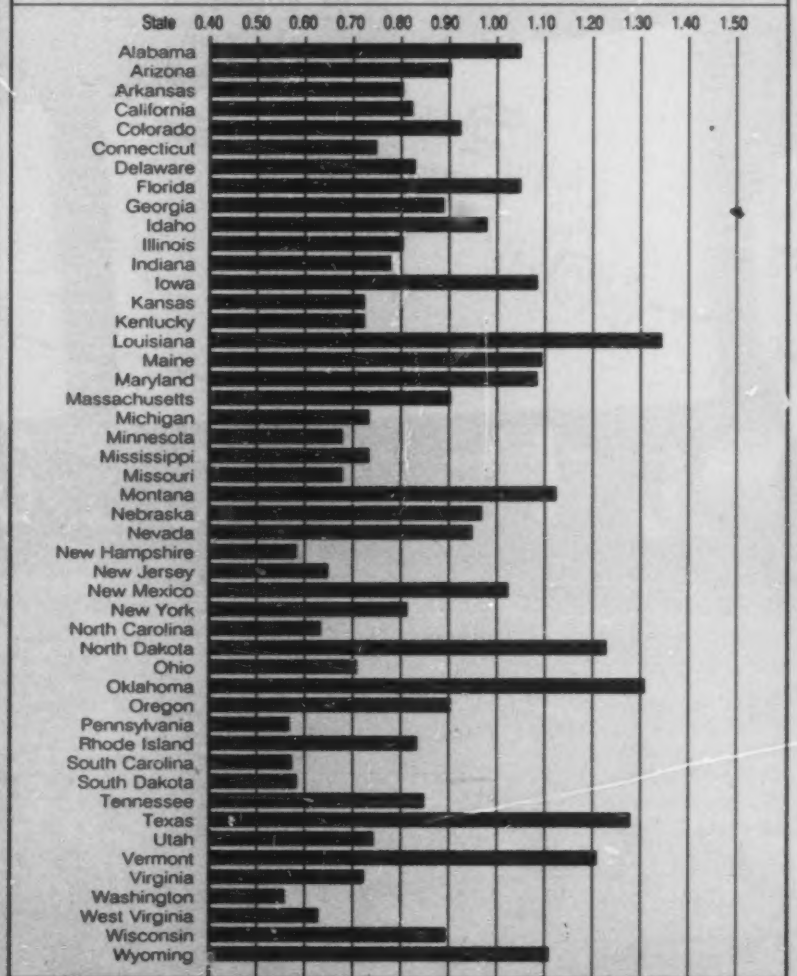
STATE TAX ENVIRONMENTS

STATE AND LOCAL TAX RATES

State	Taxes/ $1,000	% Change	State	Taxes/ $1,000	% Change
Alabama	$ 99.86	1.39%	Nebraska	$110.49	6.51%
Arizona	120.48	4.89	Nevada	111.11	8.26
Arkansas	97.44	4.59	New Hampshire	92.60	6.69
California	115.39	0.41	New Jersey	116.66	4.05
Colorado	106.18	4.13	New Mexico	126.02	-10.11
Connecticut	111.73	9.57	New York	164.61	3.91
Delaware	111.82	3.15	North Carolina	106.37	3.37
Florida	95.08	1.77	North Dakota	115.30	2.58
Georgia	105.32	-0.20	Ohio	111.16	20.79
Idaho	100.99	0.91	Oklahoma	105.68	-4.35
Illinois	113.47	2.71	Oregon	123.54	4.27
Indiana	104.68	13.39	Pennsylvania	114.36	4.70
Iowa	119.13	7.50	Rhode Island	121.03	4.99
Kansas	103.42	3.11	South Carolina	107.92	1.20
Kentucky	101.83	-1.35	South Dakota	100.24	-7.66
Louisiana	109.09	-5.51	Tennessee	92.58	-3.12
Maine	125.91	5.93	Texas	97.07	-3.33
Maryland	116.85	3.99	Utah	128.63	8.19
Massachusetts	117.45	-11.55	Vermont	128.56	2.15
Michigan	137.50	18.86	Virginia	101.44	0.97
Minnesota	143.85	19.92	Washington	117.63	17.10
Mississippi	107.97	0.14	West Virginia	120.70	12.77
Missouri	93.00	6.02	Wisconsin	137.47	12.28
Montana	129.28	0.47	Wyoming	208.89	34.52

STATE AND LOCAL TAX RATES indicates the level of all state and local taxes per $1,000 of personal income. "% Change" indicates the trend in taxation over three years. Several states show decreasing tax levels in recent years, and in one region, the South Central, the rate dropped 2.15 percent. Three of the four states in that region (Louisiana, Oklahoma and Texas) lowered their tax rate during the three-year period. Many of those states taxing above the national average ($115.58) also raised taxes more than the national average over three years, while states taxing below the national average often indicated slower than average growth. Thus the next few years may see the rich get richer, and the poor being taxed even more. Source: General Manufacturing Climates, Grant Thornton.

EXPENDITURES VS. REVENUES



EXPENDITURES VS. REVENUES balances the revenues generated by each state against its expenditures over the course of three years. Results less than 1.00 indicate that state and local governments are generating more income through taxation and other means than is required by their current level of spending. Results over 1.00 represent deficit spending, and the prospect of increasing government debt as a result. Implied in this is the threat of increased taxation to bring revenues in line with current spending levels, or the elimination of government-sponsored programs. Unlike the federal government, most states seem to have their own houses fairly well in order. Thirty-five of the 48 contiguous states are generating more income than they are spending. The results of this comparison appear to be less dependent on regional factors than many of the others examined. Six of the eight regions included at least one state which ranked in the top 10 nationwide, and five of the eight regions were represented in the list of the bottom ten states. However, the average scores for the eight regions vary rather substantially, indicating that, while there are "secure" locations scattered throughout the country, there may be differences which run along regional lines in the readiness to increase debt as a matter of policy. Source: General Manufacturing Climates, Grant Thornton.

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